

Network Data

	1992	1993	1994	1995	1996
Capital Expenditures (in millions)					
SBC	\$2,146	\$2,221	\$2,359	\$2,500	\$2,600
Southwestern Bell	1,817	1,805	1,800	1,800	1,800
Pacific Telesis	1,025	1,000	1,000	1,000	1,000
Pacific Bell	\$1,669	\$1,802	\$1,812	\$1,904	\$1,904

Availability as % of Total Access Lines:

Southwestern Bell					
SS7	64%	67%	68%	68%	68%
ISDN	17%	24%	24%	24%	24%
Served by Digital Switches	39%	40%	41%	41%	41%
Pacific Bell					
SS7	41%	59%	59%	59%	59%
ISDN	19%	33%	33%	33%	33%
Served by Digital Switches	43%	52%	55%	55%	55%

Frame Relay-Ports in Service

Southwestern Bell	2	78	800	1,200	1,200
Pacific Bell	—	84	1,100	12,200	12,200

Number of Switches:

Southwestern Bell					
Digital	855	1,078	1,207	1,200	1,200
Analog	348	308	294	294	294
Electromechanical	222	83	75	75	75
% of Switches-Digital	66%	73%	78%	78%	78%
Pacific Bell					
Digital	570	618	607	600	600
Analog	225	176	117	117	117
% of Switches-Digital	72%	78%	85%	85%	85%

Fiber Ring Configurations

Southwestern Bell SONET Fiber Rings	49	55	49	49	49
Pacific Bell SONET Fiber Rings	—	—	5	45	45
Total	49	55	49	1,102	1,102

Miles of Fiber

Southwestern Bell	576,447	775,045	975,701	1,000,000	1,000,000
Pacific Bell	185,204	225,001	255,000	255,000	255,000
Total	759,651	1,000,106	1,224,545	1,517,500	1,517,500

Sheath Fiber Miles

Southwestern Bell	17,644	21,950	25,200	25,200	25,200
Pacific Bell	5,032	5,000	6,000	6,000	6,000
Total	22,676	27,846	31,600	30,900	30,900

Cell Sites (TDMA)

SBC	849	985	1,589	2,249	2,249
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technology



Technology



In a more competitive telecommunications environment, technology is more apt to provide market advantages and opportunities for growth than ever before.

TRI's role focuses on identifying and evaluating emerging technologies.

SBC's Technology Research Institute

Technology fills an increasingly critical strategic role in the highly competitive telecommunications environment. One reason is that heightened competition can be expected to accelerate technology's development and deployment. Another is that technology-based solutions, transparent though they may be to the customer, increasingly provide the catalyst for competitive differentiation and growth opportunities.

In this dynamic environment SBC looks to its Technology Research Incorporated (TRI) to identify and evaluate unique telecommunications advancements that deliver solutions for customers and maintain leadership for SBC.

TRI, which provides technical consulting for all of SBC's domestic and international operations, is organized around six areas of focus:

- Broadband
- Information technology
- Intelligent network
- Interactive video/multimedia
- Voice
- Wireless

TRI's role focuses on identifying emerging technologies and evaluating competing vendors or applications to identify the best options. This approach, and TRI's consistent focus on its clients' business objectives, helps incorporate the value of new technology quickly and cost effectively. As the designated internal technology consultant for all SBC business operations, TRI plays a critical role in focusing employees on technology and on collaboratively solving the tough technology issues that have the greatest potential impact on SBC's profitability.

TRI's executive staff averages 26 years of experience in the telecommunications industry and its technical staff averages 14 years of relevant technical experience. TRI recruits top consultants from other telecommunications manufacturing companies and major suppliers, including Bell Labs, Bell Northern Research, V-Tel and Motorola. Entry-level employees join TRI from top universities with strong programs in its six technology focus areas, including Carnegie Mellon University for information networking, Virginia Polytechnic Institute for wireless, MIT for multimedia, and the University of Texas for broadband networking.

TRI implements technologies that reduce time-to-market for new services.

With the merger of Pacific Telesis Technologies Laboratory into TRI, additional technology expertise is available. The California market has given particular emphasis to data services, and this infusion of talent will speed the time-to-market of high-speed data services. Significant synergy also exists in the deployment of Asymmetric Digital Subscriber Line for megabit data speeds, using existing copper lines to businesses and residences.

TRI creates value for SBC in a number of ways.

Ⓐ Implementing technologies that greatly reduce time-to-market for new network services.

case in point

TRI has been at the forefront of SBC's deployment of Advanced Intelligent Network (AIN) and Service Creation technologies. New network services under development include Call Navigator, Call Select, Over-the-Air Activation and Unified Messaging Services.

Ⓑ Deploying Asynchronous Transfer Mode (ATM) core switches that are directly integrated with SBC's advanced fiber optic, SONET-based, interoffice network.

case in point

ATM core switches will strengthen and expand SBC's ability to provide high-speed services such as Frame and Cell Relay and will deliver the most sophisticated broadband networking capabilities possible today.

In the absence of standard specifications for selecting an ATM vendor, TRI wrote detailed technical specifications and provided significant support in the subsequent Request

for Proposal (RFP) process used to select SBC's core switch vendor. TRI also carries out laboratory testing of the finalists' proposed switches.

Ⓒ Identifying and assessing technologies that can increase revenue streams, reduce costs or improve service quality.

case in point

Among these technologies being considered are new broadband services which will increase revenue streams and support cost-efficient deployment of a broadband network that reaches to customers' homes. TRI also is examining wideband software-definable radios which would significantly increase the capacity and service quality of SBC's cellular spectrum. Another TRI responsibility is to assess technology applications such as voice-activated interfaces that include Spanish and other language recognition, networked computing, voice services via the Internet, wireless broadband, wireless data and interactive applications for the Internet and TV.

Ⓓ Meeting the network functionality requirements of the Telecommunications Act.

case in point

TRI is providing technical support for the selection and deployment of network elements for Local Number Portability.

Ⓔ Researching and assessing competitively critical emerging technologies.

case in point

Wave Division Multiplexing (WDM) is an important emerging technology that may greatly assist in expanding capacity of the existing fiber network. WDM assigns a frequency ("color") to separate channels so that multiple independent high-speed signals can use the same (single) fiber.

WDM technology has the potential to expand network capacity without physical reinforcement of SBC's fiber routes.

⑥ Supporting SBC's international merger and acquisitions due diligence efforts.

Case in point:

TRI assesses the state and capacity of physical plant and the likely technology-based prevalence of competition over time.

TRI develops capital models and assists in development of operating expense models used in valuation modeling. TRI brings the perspective of lifecycle costs for various serving arrangements and lines of businesses, which may require assessments of several generations of technology over the 10-to-15-year valuation period.

SBC's international wireless bids benefit from TRI's specialized expertise in cellular radio propagation and network construction costing. As part of SBC's recent strategic equity investment in Telkom South Africa, TRI assisted the Corporate Development team in assessing the technology and costs for deploying wireless local loop equipment.

SBC's Perspective on Strategic Technology and Network Architecture Issues

What impact has the growth in data communications had on network infrastructure planning and deployment?

Customer demand for high-bandwidth capabilities is growing rapidly, based in part on Internet usage and traffic. The existing voice network was not designed to handle the demand for data communications, nor is that an efficient use of network capacity. We have made several strategic deployment decisions to

address both short- and long-term demands of this fundamental shift in network traffic.

Our proactive solution to this issue is a new service called Intranet/Internet Transport Service (IITS), which provides a way to divert data traffic from the Public Switched Telephone Network (PSTN) before it enters the PSTN switch and route it over a discrete data network. The deployment of IITS, a tariffed service, provides benefits to SBC and to our Internet Service Provider (ISP) customers. For the ISPs, IITS reduces the number of modem banks required to handle their customers' traffic, which lowers their capital expenditures. It also provides faster and more reliable access to the Internet for their customers. For SBC the new service eliminates the need for additional switching capacity to handle the high level of data traffic now flowing through the PSTN.

The longer-term solution to the traffic shift is the deployment of packet, frame and cell based transport and Asynchronous Transfer Mode (ATM) switching, a new generation of technologies which is the basis of tomorrow's infrastructure. Southwestern Bell is installing ATM Core switching equipment in the 12 largest metropolitan areas we serve. It strengthens our ability to provide high-speed services, provides an underlying infrastructure for the transport of Frame Relay services, and greatly expands the availability of Cell Relay service capabilities. The ATM switches will be connected to the advanced fiber optic

(SONET-based) interoffice network already in place. Together with SONET-interoffice facilities, the ATM switches provide the most sophisticated broadband networking capabilities possible today.

What is the status of your development of ADSL?

ADSL (Asymmetric Digital Subscriber Line) is a developing technology that will allow wireline-service providers to offer high-speed digital service over existing copper facilities. Both Southwestern Bell and Pacific Bell have extensive trials underway, focusing on ADSL technology issues and challenges as well as various customer needs and product offerings.

ADSL is an asymmetrical technology. This means its throughput is higher downstream to the customer's location than upstream from the customer's location. ADSL technology can offer downstream bandwidth as high as 6 megabits per second and upstream bandwidth as high as 640 kilobits per second. The examples that follow compare the speeds of different technologies when downloading a 10 megabyte file:

Analog Modem (28.8 Kbps)	54 Minutes
(56.0 Kbps)	25 Minutes
ISDN (128 Kbps)	11 Minutes
ADSL (384 Kbps)	4 Minutes
ADSL (1.5 Mbps)	1 Minute
ADSL (6 Mbps)	16 Seconds

Although ADSL clearly speeds transmission, the new technology also presents challenges

such as electromagnetic interference. Further, the capacity of ADSL decreases as distance between the customer and the serving wire center increases. At present we believe we can address customers only within 15,000 feet of a central office, which applies to the majority of our customers.

ADSL's ideal applications include remote office access, Internet access, teleradiology and LAN interconnection. Both Pacific Bell and Southwestern Bell plan to roll out some ADSL services in fourth-quarter 1997. They will provide two kinds of offerings initially. The first offers 384 kilobits of data in each direction. The second offers 1.5 megabits of data downstream to the customer and 384 kilobits upstream. Subsequent ADSL offerings are expected to provide greater throughput as the technology matures.

SBC GROWTH PROFILE 1997

i n t e r n a t i o n a l i n v e s t m e n t s

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SBC's International Investments

- ❖ International opportunities undergo the same disciplined, financially focused evaluation SBC applies to domestic businesses. We invest where we can build long-term, mutually beneficial relationships with partners, bring our expertise to bear on the development of the telecommunications operation and earn a profitable return.

United States

- 31,370,000 Access Lines
- 4,398,000 Wireless Customers

Mexico

- 8,826,000 Access Lines
- 656,700 Wireless Customers

France

- 927,900 Wireless Customers

Switzerland**Israel**

- 276,800 Video Customers

South Africa

- 3,900,000 Access Lines
- 337,400 Wireless Customers

United Kingdom

- 694,800 Access Lines
- 528,000 Video Customers

Chile






- 97,400 Access Lines
- 175,100 Wireless Customers
- 321,000 Video Customers

South Korea

- 290,100 Wireless Customers

Taiwan

Note: Access line data and wireless and video customers for international businesses represent total figures for those businesses.

	Investment	Partners
 Mexico	9.6% equity stake in Teléfonos de México	Carso Global Telecom & France Telecom
 Chile	49.3% equity stake in VTR S.A.	Grupo Luksic
 Switzerland	40% equity stake in Dix	Nordostschweizerische Kraftwerke; Centralschweizerische Kraftwerke; Aare Tessin AG für Elektrizität Atel; BKW FMB Energie AG; Elektrizitäts-Gesellschaft Laufenburg AG; SA l'Energie de l'Ouest Suisse
 Taiwan	20% equity stake in TransAsia Telecommunications	Formosa Plastics & Goldsun Group
 United Kingdom	15% equity stake in TeleWest	TCI, US West, Cox Communications

The principles SBC applies to our international investments are durable, guiding us through the rapidly changing global market and our own growth. They also permeate the due diligence process we follow in deciding which opportunities to pursue.

New regulatory developments in markets around the world undoubtedly will bring new investment opportunities. In such a dynamic global telecommunications marketplace, international strategies have to be able to respond as changes in trends offer new opportunities for growth. Under current international telecommunications market conditions, SBC believes that our opportunistic, selective, market-by-market approach is still the best way to build value for our partners and our shareowners.

The major benefit to this approach is the strong alliances that can be built with local partners. SBC enters relationships unencumbered, without the propensity to impose global corporate policies and strategies which could limit an individual market's growth potential. This individual market focus also facilitates a much stronger bond between SBC and local partners and creates an international reputation for SBC based on the value we add and the mutually beneficial relationships we foster with strategic partners. The alliances built around each individual investment can be leveraged to grasp other

growth opportunities that our international partners are more readily positioned to identify.

SBC's International Strategies

- Pursue wireless investments when the selection process enables SBC to highlight our competitive strengths.
- Pursue high-quality, reasonably priced privatization investments in countries with rapidly growing markets and reasonable regulatory environments and rate structures.
- Pursue new-entrant local, domestic and international long-distance wireline opportunities where the playing field is balanced and the rules and degree of foreign investment facilitate SBC's ability to influence the operations of the business and earn an adequate return.
- Seek international opportunities that are responsive to the needs of our Asian and Hispanic customer segments in California and Texas.
- Work closely with international partners to ensure they have the organizational infrastructure, training and expertise to operate the business efficiently.
- Develop an international reputation for being a good partner and leverage these relationships to seize new investment opportunities as they emerge.
- Assume a direct management role and hands-on involvement in the operations of the business.
- Pursue financing arrangements that put less SBC capital at risk and offer minimal dilution.

**Recognizing Opportunities
in the Global Market**

The World Trade Organization and European Economic Community are helping participating countries follow a constructive path in opening markets to new entrants and foreign investment. The efforts make potential investments in these nations more attractive:

- The process tends to deliver a comparatively more predictable base of knowledge.
- There is less perceived bias toward national incumbents.
- Foreign investors gain greater assurance that value creation can be monetized and repatriated to their home countries.

The changing relationship between governments and their telecommunications providers fosters positive changes in the regulatory climate. As regulatory bodies become less closely tied to their national PTTs, the regulatory framework becomes more open to new entrants, more evenhanded in its decision-making, and more conducive to private investment. The new environment is more likely to embrace the kind of hands-on management involvement that SBC requires.

In addition to positive developments in markets overseas, SBC has gained leverage in the international market through our merger with Pacific Telesis. With our expanded operations:

- About 40 percent of U.S. calls to Asia occur where SBC has network facilities.

- SBC market areas make and receive 60 percent of calls between the U.S. and Mexico.
- In California we have the nation's greatest concentration of U.S.-based Asian businesses.

SBC already has begun to seize some of the new opportunities resulting from changes in global market dynamics and our broader customer platform. One example is the China-U.S. Undersea Cable, which involves the construction of an undersea fiber optic cable system to provide a direct telecommunications link between North America and Asia. The venture is intended to provide low-cost capacity for international long-distance traffic to China and other fast-growing Asian markets.

The relationships SBC will develop with other participants, which include a number of the major players in Asian telecommunications, also are likely to develop further business in the Pacific Rim, reinforcing relationship building, a key tenet of SBC's approach to international business.

Although the number of international opportunities is multiplying, only a limited number can be expected to meet SBC's investment criteria. SBC is especially diligent in investment opportunity analysis and will continue to submit bids that are based on disciplined qualitative and quantitative analysis.

Assessing Investment Opportunities

The international opportunities in which SBC chooses to be a partner share certain characteristics:

- They stand up to a rigorous discounted cash flow valuation.
- They undergo a thorough due diligence process.
- They can meet SBC's criteria for return on investment.
- They offer strategic, long-term and mutually beneficial relationships with partners.
- They benefit from SBC's extensive network and operational experience and telecommunications knowledge.

Benefits to SBC of Participating in the Global Market

- Global technology access.
- Management experience in critical competitive areas.
- Broader experience with market and regulatory conditions.
- Create shareowner value.
- Contributions to profits.



Mexico

**Investment**

Approximately 9.6 percent ownership in Telmex, Mexico's nationwide telecommunications company

Strategic Partners

Grupo Carso Telecom, recently spun off from Grupo Carso
France Telecom, France's dominant state-owned telecommunications provider

Business Segments

Local service, long distance, wireless

Economic Profile

1996 GDP growth
5.1%

1996 GDP per Capita
\$7,700

5-year projected
real GDP CAGR
4.4%

Customer and Network Profile

	1990	1996
Total wireless penetration	0%	7.7%
Local service	100%	100%
Long distance	100%	100%
Wireless technology	0%	100%

Population data source: U.S. Bureau of the Census

Market Characteristics

Long-distance competition began in Mexico in August 1996 with private line facilities-based services. By January 1997, Telmex began providing interconnect services to long-distance competitors in Mexico's 60 largest cities, which represent about 75 percent of all lines in service throughout the country. Under an aggressive government-mandated schedule, those 60 cities will offer customers equal access by mid-year 1997, and conversion will continue at the rate of 40 to 50 cities per year.

With approximately nine access lines per 100 people, Mexico has great potential in comparison with the United States. Moreover, as the only nationwide provider of local service, Telmex stands to benefit from a tariff

rebalancing program which matches customer charges more closely to the cost of delivering service, in effect raising local rates.

Management Role in Operations

SBC serves as strategic consultant to Telmex for marketing, customer service, network engineering and management and operations. SBC's involvement in Telmex has focused on comprehensive training for its employees and the transfer of management and technical expertise so that Telmex is well positioned for success in its market.

Accomplishments Since Investment

Telmex has taken significant steps to prepare for competition and maintain its leadership position. Since privatization in 1990, it has invested \$12 billion in modernizing and

expanding its local and long distance network and has sufficient capacity to meet its needs through 2001. Providing equal access interconnection to the Telmex long-distance network involved the full-time attention of more than 500 employees and an investment of \$500 million. Its nationwide footprint, capabilities upgrade and preparation for competition have made Telmex a formidable competitor:

- Its \$12 billion technological upgrade includes a 100 percent digital long distance infrastructure. The local service network is 90 percent digital overall and 100 percent digital in the three largest Mexican cities.
- It simplified its rate structure and introduced flat rate programs for both residential and commercial customers.
- It segmented its customer base for focused marketing programs, stepped up advertising and marketing efforts and developed customer retention strategies tailored to specific market segments.
- It upgraded customer service centers to provide single-source points of contact for customer service, billing questions and payments, and new service sign-up. The centers also include video conferencing capabilities. Large commercial customers are served from a single major account center focused on their particular needs.
- Its customer service efforts have reduced installation time from almost two years in 1990 to six weeks. Trouble reports have fallen to 3.7 per 100 lines per month from 13.5 in 1990.

- It has expanded the number of public telephones and introduced Smart Cards to facilitate their use.

Telcel's Accomplishments:

- Telcel, Telmex's nationwide cellular operations, experienced significant customer growth in the past year, due to its network of 1,200 distributors and numerous retail outlets and its prepaid wireless program.
- Telcel has aggressively installed fraud prevention programs which improve both quality of service and financial performance.

Near-term Priorities

To continue its excellent performance and thrive in its newly competitive market, Telmex is focusing on several strategic initiatives:

- Continue to improve its management team, to facilitate customer service improvements and marketing initiatives, and act quickly on developing opportunities while maintaining network quality.
- Grow its revenue base through new services and marketing initiatives that increase revenue per subscriber.
- Further develop the cellular market.
- Manage its business to succeed in a competitive environment, including enhancements to customer service.



Local service, long distance, wireless

5-year projected
real GDP CAGR
2.3%

1996

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1990

With a high-quality network in place, SFR aggressively marketed its service and dramatically built its customer base in 1996. While exclusive agent arrangements are prohibited in France, SFR has created a

formidable semi-exclusive agent distribution channel which ensures that SFR service accounts for 80 percent of agents' wireless sales. Similar to the practices of SBMS in the United States, SFR has created an agent compensation system that closely aligns the interests of SFR and its agents.

SFR also distributes its service through retail centers, capitalizing on French consumers' receptiveness to purchasing wireless there.

The presence in the French market of a significant number of premium telecommunications users who have not yet purchased wireless service creates the potential for rapid growth. As a result, SFR has been able to focus on growing its customer base and revenue per subscriber through attractive rate plans and packaged services, giving lower priority to churn management and prepaid wireless service. SFR's market share is expected to remain at its current 45 percent level, with the company focused on efforts to grow the overall market and hopefully avoid costly market share wars with France Telecom.

Near-term Priorities

SBC's management believes that the penetration rate for wireless service in France has the potential to reach 15 percent in four years. To continue to grow the fundamental value of the business over the next year, SFR is particularly focused on customer service and initiatives to improve its cost structure, in addition to continuing to expand the depth of its wireless network. Specific initiatives include:

- Installing advanced software to enable SFR to continue to set the standards for top-quality service. Enhancements include on-line access to customer profiles and billing records so that customer service representatives can suggest appropriate service packages and answer questions during customer conversations. Providing high-quality customer service can be a competitive advantage in France, where customers are not accustomed to the level of service available in the U.S. market.
- Leveraging purchasing scale by reducing the number of equipment vendors to three. Consolidating vendors strengthens their ties with SFR and standardizes network equipment, making the network easier and less expensive to maintain and enabling SFR to improve service quality.
- Adding 900 base stations to fill in pockets of coverage in order to maintain high levels of customer service and network dependability, which helps attract new customers.



Chile

Investment

49.3 percent interest in VTR, a Chilean telecommunications company offering local, long-distance and cellular service and cable TV

Strategic Partner

Grupo Luksic, one of the largest family-owned Chilean conglomerates

Business Segments

Wireless, cable, local service, long distance

Economic Profile

1996 GDP growth
7.2%

1996 GDP per Capita
\$8,000

5-year projected
real GDP CAGR
5.9%

Customer and Network Profile

	1994	1995	1996
Population	11,000,000	11,200,000	11,400,000
Population 18 and over	8,500,000	8,700,000	8,900,000
Population 18 and over, urban	7,500,000	7,700,000	7,900,000
Population 18 and over, rural	1,000,000	1,000,000	1,000,000
Population 18 and over, female	4,200,000	4,300,000	4,400,000
Population 18 and over, male	4,300,000	4,400,000	4,500,000
Population 18 and over, employed	4,500,000	4,600,000	4,700,000
Population 18 and over, unemployed	1,000,000	1,100,000	1,200,000
Population 18 and over, retired	1,000,000	1,100,000	1,200,000
Population 18 and over, disabled	1,000,000	1,100,000	1,200,000
Population 18 and over, other	1,000,000	1,100,000	1,200,000
Total VTR video penetration	11.0%	11.2%	11.4%
Wireless penetration	1.0%	1.1%	1.2%
Cable TV penetration	1.0%	1.1%	1.2%
Video network	1.0%	1.1%	1.2%
Hybrid fiber coax	1.0%	1.1%	1.2%

Population data source: U.S. Bureau of Census

Market Characteristics

Chile has one of the world's fastest-growing economies, one of the most stable governments in South America and a highly competitive telecommunications market with little government regulation. PCS competitors are expected to enter the market in 1998.

Management Role in Operations

SBC provides both operational and strategic support. It worked with VTR to develop and implement video strategy and played an instrumental role in VTR's wireless merger with CTC, Chile's national telephone company. SBC assigned key employees from the U.K. cable operation to Chile to help develop the integrated and highly advanced HFC platform.

Accomplishments Since Investment

SBC's investment in VTR has focused on value-building activities in wireless, cable and telephony offerings.

Wireless Operations

In 1996, to build value for its wireless business, VTR merged with CTC and created the nation's first and, for now, only national wireless network. The acquisition gave VTR access to the Santiago market, which represents 14 percent of the nation's population and 55 percent to 60 percent of its economic strength.

Among other achievements:

- Launched a successful prepaid wireless offering, significantly expanding its customer base.

- Expanded the distribution system, shifting from exclusively direct sales to 45 percent of sales through agents.
- Used customer service surveys, new to the market, to identify customer needs and help set priorities for new services. Initiatives already implemented include 24-hour service and voice-response systems.

Cable Operations

Following a series of acquisitions, VTR's cable operation will focus on rolling out a nationwide integrated video and telephony service and delivering a level of quality comparable to that of U.S. telephone service:

- The 750 HFC network supports an expanded range of services. It has been built out in all major Chilean cities, available to 65 percent of VTR's homes passed.
- VTR benefits from distinctive programming, including exclusive rights to Chilean soccer, and DirecTV, with 60 channels, including all the premium channels.

Telephony Operations

While currently serving a small population base, VTR's telephony business features a completely digital network. In a little over a year it increased its access lines 50 percent to 100,000. Household penetration at year-end 1996 was 17 percent.

- Caller ID penetration reached 30 percent in the first seven months it was offered to customers.

- Development of a customer-oriented operating style has reduced response times for customer service to one day and for installation to three days and has stimulated the creation of popular multiple service packages.

Near-term Priorities

Near-term objectives for the wireless business are to continue to grow the customer base, further expand customer service and product initiatives and leverage vendor consolidation to lower costs and improve network maintenance. VTR is also focused on improving its billing system, which will both enhance customer service and improve the distribution system by solidifying agent relationships. VTR's network is scheduled to be fully digital by the end of 1997. VTR is capitalizing on its nationwide name recognition and positive reputation to establish the merged VTR-CTC as a strong cellular brand, synonymous with quality and well-positioned in a highly competitive environment.

VTR plans to leverage its businesses' strengths to eventually offer nationwide video and telephony service. The telephone company's telemarketing expertise is expected to be extended to the video-based operations. VTR also plans to leverage its ability to be a single-source provider of local, wireless and video services. It is aggressively deploying one-stop sales centers, with four open and plans to roll out more than twice that number during 1997.



South Africa



Investment

18 percent stake in Telkom South Africa, South Africa's national telecommunications company, representing SBC's largest investment in a privatization effort

With this investment, SBC is likely to sell its 15.5% stake in MTN, South Africa's second cellular provider

Strategic Partner

Telekom Malaysia Berhad, Malaysia's national telecommunications provider

Business Segments

Local service and long distance

Economic Profile

1996 GDP growth

3.6%

1996 GDP per Capita

\$4,800

5-year projected
real GDP CAGR

3.6%

Customer and Network Profile

	1995	1996
Population (in thousands)	41,000	41,700
MTN wireless customers	168,000	337,400
MTN wireless penetration	.4%	.8%
Telkom South Africa access lines (in millions)	3.8	3.9
Telkom South Africa access line penetration	9%	9.3%

Wireless Network Technology

1996

GSM

Population data source: U.S. Bureau of the Census

Market Characteristics

South Africa's population of 41.7 million is about equal to Texas, New York and Missouri combined. Only 10 percent of South Africa's non-white households – 87 percent of the population – have telephone service.

Investment Opportunity

Build and greatly expand Telkom South Africa's network infrastructure and add to its management expertise.

The investment also positions SBC to pursue other opportunities on the African continent. SBC was the first regional Bell operating company to invest there. Telekom Malaysia has ties to projects in other African nations.

Management Role in Operations

Telkom South Africa. With 30 percent ownership, the consortium leads Telkom's Operating Committee and is responsible for

business plans, training programs, management structure and network buildout. The consortium appoints key executives, including the chief operating officer, chief financial officer and chief technical officer.

MTN. SBC managers hold the roles of CEO and senior marketing and network manager in MTN's wireless operations.

Near-term Priorities

- Align the employee workforce more closely with South Africa's demographics.
- Initiate network architecture development to add 340,000 access lines this year, primarily reaching underserved segments of the population.
- Create detailed business and operational plans for adding more than 2.5 million access lines within five years.
- Develop and initiate customer service and customer care programs.



Switzerland



Economic Profile

1996 GDP growth
-0.7%

1996 GDP per Capita
\$43,700

5-year projected
real GDP CAGR
2.1%

Market Characteristics

The Swiss economy is marked by stable growth, low inflation and a solid currency. The population is highly educated, accustomed to a high standard of living and receptive to new products and services. At US\$10 billion, the Swiss telecommunications market is the world's 12th largest. Annual revenues per telephone line are the highest in the world, and Switzerland has more telephones per capita than any other country except Sweden. The three billion international calling minutes it generates annually rank it seventh highest in the world.

Management Role in Operations

SBC is the telecommunications operating partner in DiAx. The specifics of management structure, staffing, board representation and similar topics will be determined as the partners make organizational decisions.

Telecommunications Environment

Along with other European nations, Switzerland is preparing to open its telecommunications market to competition effective January 1, 1998. Liberalization is expected to bring further growth in what already is a strong telecommunications market whose current provider is technically strong and has a positive public image.

Accomplishments Since Investment

The six electric utilities which are SBC's partners in DiAx provide familiarity with local and national governmental practices and access to rights of way and real estate that potentially can be used to build the backbone telecommunications network. DiAx is focused on building an advanced digital fiber optic network that will link all major Swiss cities and support service delivery that emphasizes outstanding customer service, quality and competitive prices. DiAx also is preparing to bid on Swiss wireless licenses when they become available.

Investment

40% stake in DiAx

Strategic Partners

Switzerland's six largest electric utilities

Business Segments

Local service,
long distance



South Korea



Economic Profile

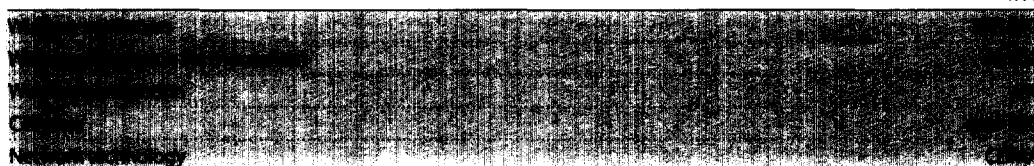
1996 GDP growth
6.8%

1996 GDP per Capita
\$13,000

5-year projected
real GDP CAGR
6.7%

Customer and Network Profile

1996



Population data source: U.S. Bureau of Census

Investment

7.8 percent interest
in Shinsegi Mobile
Telecommunications
Company

Strategic Partners

POSCO, a Korean
conglomerate which is
the world's second largest
steel producer

Kolon, a Korean
conglomerate with global
interests in chemicals,
textiles, finance and
construction

Business Segments

Wireless

Market Characteristics

Densely populated South Korea offers strong demographics for telecommunications services and presents one of Asia's strongest and most rapidly growing economies. PCS competition will enter the market in 1997.

Management Role in Operations

SBC provides consulting services, primarily in the marketing and customer service areas.

Accomplishments Since Investment

The consortium began operating South Korea's second nationwide cellular network in April 1996 in Seoul and signed up 290,000 subscribers by year-end. It added another 190,000 in the first four months of 1997, a pace that far exceeds SBC's other foreign cellular investments. Its target is more than 1 million customers by year-end 1997.

To grow its customer base rapidly, Shinsegi is stimulating demand through handset price promotion, tripling the number of new subscribers to more than 4,000 per day.

Subsidization is likely to continue until early 1998 when more production worldwide brings CDMA handset costs down.

Shinsegi also is building an extensive agent distribution system among the thousands of small businesses that make up the South Korean market.

The only purely digital system in the world, the Shinsegi network has quickly won recognition for high quality. Its completion rate is above 90 percent and dropped call rate under 10 percent, based on a total of about 5.5 million call attempts daily.

Near-term Priorities

- Continue to improve network quality, adding about 250 cell sites in 1997.
- Expand the customer base, with programs such as cheaper handsets, a straightforward rate structure and more retail outlets.
- Strengthen the distribution system through agents and sub-agents.



Taiwan

**Investment**

20 percent stake
in TransAsia
Telecommunications Inc.

Strategic Partners

Formosa Plastics, Taiwan's
largest industrial group,
with interests in plastics,
computer chip
manufacturing, power
plant design and civil
construction

Goldsun Group, with
interests in construction
and airline and security
system holdings

Business Segments

Wireless

Economic Profile

1996 GDP growth

5.7%

1996 GDP per Capita

\$13,500

5-year projected
real GDP CAGR

6.6%

Customer and Network Profile

	1996
	21,500
	GSM

Population data source: U.S. Bureau of the Census

Market Characteristics

A dynamic market in its own right, Taiwan is also recognized as a gateway to Asian markets and is China's third largest trading partner. Its gross domestic product has been increasing at a 6.1 percent annual rate the past three years and is projected to grow 6.6 percent annually in the next five years.

Management Role in Operations

SBC executives hold the top management position, the senior positions in marketing and network, and the position of chief financial officer. SBC anticipates continuing its management role through TransAsia's growth period, with involvement diminishing as management and technological expertise are transferred to the Taiwan operations.

Telecommunications Environment

In addition to the nationwide cellular license held by the government's PTT, in early 1997 Taiwan awarded three regional cellular licenses with TransAsia obtaining the regional cellular license for the southern region. It also has granted three PCS licenses, one of which is a nationwide license, setting the stage for a dynamic competitive market when all the license holders are in operation.

Accomplishments Since Investment

SBC has completed extensive preparations for the consortium's service launch in 1997's fourth quarter. It has had a team in Taiwan to acquire cell sites, negotiate contracts with vendors and conduct RF engineering. During the remainder of the pre-implementation period, the emphasis will be on establishing a high-quality cellular network with strong brand identity in what promises to be a fast-growing but competitive market environment.



Israel

**Investment**

50 percent interest
in AUREC Group

Business Segments

Cable, international
long distance, directory
publishing, software

Economic Profile

1996 GDP growth

4.3%

1996 GDP per Capita

\$15,500

5-year projected
real GDP CAGR

4.2%

Customer and Network Profile

	1996
Cable subscribers	276,800
Phone lines	433,058
Cable penetration	63.9%
Network	500 Mhz

Investment

SBC holds a 50 percent stake in AUREC Group, an Israeli cable television and publishing company. Through its Amdocs subsidiary, AUREC also is a major supplier of software, including billing and customer service software used by the U.S. regional Bell companies and many other telecommunications companies worldwide.

Management Role in Operations

The long-standing partnership between SBC and AUREC benefits from mutual trust and respect, shared appreciation for financial discipline and willingness to identify and invest in growth opportunities worldwide.

Accomplishments Since Investment

Golden Channels, which provides cable TV service, continues to drive cable penetration growth in the Israeli market. With 27,000 subscribers added in 1996, Golden Channels subscribers exceeded 276,000 at year-end, for a 64 percent penetration rate. Golden Pages, AUREC's yellow pages business, continues to achieve market growth as well.

In November 1996, Israel awarded one of two international long-distance licenses to SBC and AUREC as part of a consortium which also includes Stet SpA, Italy's national telecommunications company, and Globescom, the telecommunications arm of Israel's Monitin Group. The consortium is scheduled to begin service in 1997. SBC's interest in the consortium is approximately 22 percent.



United Kingdom



Economic Profile

1996 GDP growth
2.3%

1996 GDP per Capita
\$9,500

5-year projected
real GDP CAGR
2.6%

Customer and Network Profile

	1996
Cable services provided (in thousands)	2,336
Cable subscribers	528,000
Cable penetration	22.8%
Telephone services provided (in thousands)	2,254
Telephone subscribers	620,337
Telephone penetration	27.5%
Network	HFC with Fiber Overlay

Population data source: U.S. Bureau of the Census

Investment

15 percent interest
in TeleWest

Business Segments

Cable, local service,
long distance

Investment

SBC in 1989 was a 100 percent owner/operator of CableComms, with Cox Cable becoming 50 percent owner in 1994. In 1995, CableComms merged with TeleWest, with SBC holding a 15 percent interest in the combined entity, the largest cable/telephony operating entity in the U.K.

Strategic Partners

TCI, the United States' largest cable operator
US West, a regional Bell operating company
Cox Cable, one of the largest cable operators
in the United States

Scope of Opportunity

To build and operate cable and telephone networks throughout the United Kingdom and invest in exclusive programming for cable networks.

Accomplishments Since Investment

Through its merger with CableComms in 1995, TeleWest developed the scale and scope to become a strong player in the telephony/cable market in the United Kingdom.

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SBC Communications Inc.—Consolidated Statements of Income

	1994	1995	1996
Operating Revenues			
Dollars in millions except per share amounts			
Local service			
Landline	\$ 7,494	\$ 8,118	\$ 8,754
Mobile	1,749	2,247	2,676
Network access			
Interstate	3,525	3,770	4,008
Intrastate	1,679	1,744	1,883
Long distance service	2,923	2,072	2,340
Directory advertising	1,980	1,984	1,985
Other	1,696	1,777	2,090
Total operating revenues	\$21,906	\$21,712	\$23,486
Operating Expenses			
Cost of services and products	\$ 7,917	\$ 7,864	\$ 8,220
Selling, general and administrative	4,315	4,694	5,321
Depreciation and amortization	8,774	9,154	9,985
Total operating expenses	30,006	31,712	33,526
Grossing income	4,890	5,120	5,836
Other income (expense)			
Interest expense	(935)	(957)	(812)
Equity in net income of affiliates	226	120	207
Other income (expense) — net	(16)	194	(82)
Total other income (expense)	(725)	(643)	(687)
Income from Continuing Operations Before Income Taxes, Extraordinary Loss and Cumulative Effect of Accounting Change	4,225	4,477	5,149
Income taxes	1,446	1,519	1,860
Income from Continuing Operations	2,777	2,958	3,189
Income from Spin-off Operations, net of tax	23	—	—
Income before Extraordinary Loss and Cumulative Effect of Accounting Change	2,800	2,958	3,189
Extraordinary Loss from Discontinuance of Regulatory Accounting, net of tax	—	(6,022)	—
Cumulative Effect of Accounting Change, net of tax	—	—	90
Net income (loss)	\$ 2,800	\$ (3,064)	\$ 3,279
Earnings Per Common Share			
Income from Continuing Operations	\$ 3.04	\$ 3.22	\$ 3.46
Income from Spin-off Operations	0.03	—	—
Income before Extraordinary Loss and Cumulative Effect of Accounting Change	3.07	3.22	3.46
Extraordinary Loss	—	(6.55)	—
Cumulative Effect of Accounting Change	—	—	0.10
Net income (loss)	\$ 3.07	\$ (3.33)	\$ 3.56
Weighted Average Number of Common Shares Outstanding (in millions)	912	920	921

*Earnings Before Interest, Taxes, Depreciation and Amortization.